

### **Abstract**

This invention relates generally to the field of microarray technology. In particular, the invention provides an integrated microarray device, which device comprises a substrate comprising a plurality of distinct microlocations and a plurality of microarray chips, wherein the number of said microlocations equals to or is more than the number of  
5 said microarray chips. In preferred embodiments, the devices also comprises a temperature controller at some or all of the microlocations. The use of the integrated microarray devices for detecting interactions among various moieties in various fields, such as clinical diagnostics, drug discovery, environmental monitoring and forensic  
10 analysis, etc., are further provided.